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Loose-leaf inclusions with this issue

- Flyer for "In Pursuit of Plants" (UWA Press)

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ASBS Inc. business

Preliminary news from the ASBS Annual General Meeting

Welcome to Darren Crayn and Marco Duretto, new Councillors. And thanks to the retiring Councillors Bob Makinson and Andrew Rozefelds.

Kirsten Cowley has also replaced Annette Wilson as Public Officer. Annette's term of office was

curtailed by her coming role as Australian Botanical Liaison Officer.

A full report on the meeting at the recent conference at the University of Melbourne celebrating 150 years of the National Herbarium of Victoria should appear in the next issue.

Nancy T. Burbidge Medal

Two Burbidge Medals awarded by ASBS

The Melbourne conference provided ASBS Council the opportunity for recognising two outstanding contributions to Australian plant systematics through the Burbidge Medal and associated Memorial Lecture.

The first was to Professor Bob Hill. He delivered this year's Lecture, and we hope to feature this in the next issue.

The second was to Professor David Mabberley, prompted by his marathon effort in presenting some 26 lectures on Robert Brown and Ferdinand Bauer in the bicentenary of their visit to Australia.

The President's speech on David Mabberley's award

David J. MABBERLEY, M.A., Ph.D., D.Phil.

It is my pleasure to announce that ASBS Council has decided to award the Nancy Burbidge Medal for service to Australian systematic botany to Professor David Mabberley.

Professor Mabberley is Leids Universiteits Fonds Professor, National Herbarium Netherlands, University of Leiden, The Netherlands; Director, David Mabberley Consulting; Honorary Director, Banks Archive Project, Royal Society and Natural History Museum, London, UK, Honorary Research Associate, Royal Botanic Gardens Sydney and Council Member, International Association for Plant Taxonomy.

He holds a B.A. in botany from Cambridge, PhD (1973) and D.Phil. (1975) from Oxford.

Professor Mabberley has worked over a number of years at Oxford University and was Curator, Oxford University Herbaria (1992-94); as well as President, Society for the History of Natural History (1993-96). He has also held the posts of Chief Executive Officer, Greening Australia (NSW) Inc. (1999-2001) and Chairman, Land Regeneration Foundation NSW (2001-2).

Professor Mabberley has undertaken fieldwork in a remarkable range of countries including Kenya, Uganda, Tanzania, Madagascar, Malaysia,

Singapore and Indonesia, Papua New Guinea, Seychelles, Panama, Portugal, New Caledonia, New Zealand, Sri Lanka, Hawai'i, Malaysia and most recently, in Cape York, on the Royal Geographical Society of Queensland expedition in 2002.

His current research interests include the taxonomy and ecology of Rutaceae, Vitaceae, Meliaceae and Labiatae; the importance of nineteenth-century horticulture in scientific progress, and the history of botanical illustration

He is author of several books, commencing in 1977 with C K Lan on an edited volume on tropical botany, but is perhaps best known as the biographer of Robert Brown with the 1985 publication of *Jupiter botanicus. Robert Brown of the British Museum*. His invaluable compendium, *The plant-book. A portable dictionary of the higher plants* is an essential reference for all working botanists. Pride of place on my bookshelf is occupied by copies of *An exquisite eye: The Australian flora and fauna drawings 1801-1820 of Ferdinand Bauer* and of *Ferdinand Bauer: the nature of discovery*.

Professor Mabberley is also author of some 250 works in technical and popular journals, including monographs.

Professor Mabberley worked tirelessly and with distinction on behalf of the Australian Systematic Botany Society during the bicentennial of the Flinders Expedition over the last couple of years in delivering public lectures in all States and territories on Robert Brown and Ferdinand Bauer.

He has without doubt made a significant contribution to Australian systematic botany and is a most worthy recipient of the Nancy Burbidge Medal.

Stephen Hopper
President ASBS

David Mabberley's acceptance speech

Mr President – Steve, members of the Society and colleagues – Friends, Thank you! I am deeply honoured by this wonderful award. As many of you already know I have been overseas for many months, in part for very sad personal reasons, so to receive in Europe an email from Council telling me of the award was a ray of joy at a difficult time.

I feel particularly honoured for two main reasons. Firstly because it is the *Nancy Burbidge* Medal and I owe Nancy some debts. Of my books, your President mentioned two – *The Plant-book* (1987, ed. 2 1997) and my life of Robert Brown (*Jupiter botanicus*, 1985). Both of those were begun when I was about to leave Cambridge to become a post-doc back in Oxford where I had my undergraduate education. The late William Stearn of The Natural History Museum tried to persuade me not to embark on either project, but others were more constructive. And I would just like to

put on record that Nancy's publications were important in both books: in pre-APNI days, her *Dictionary of Australian plant genera* (1963) for the first and her paper on Robert Brown's Australian collecting localities (1956) for the second.

The President also mentioned my lecture-tour. Little did I know in 1973 that I would one day walk where Robert Brown had walked and, indeed, become an Australian citizen! The tour started in Albany towards the end of 2001 and ended in Darwin early this year. I am grateful to Council for initiating this and the Society for backing it. With the support of the Austrian Embassy, this enabled me to cover my costs of travelling all around Australia to deliver the bicentennial lectures on Brown and Ferdinand Bauer and gave me the opportunity to meet so many of you in your natural habitats! The tour coincided with other Flinders Investigator



After the Burbidge Medal presentations at the University Melbourne. From left, President of ASBS Steve Hopper, Bob Hill and David Mabberley .
Ph. Bill Barker

bicentennial activities including a number of conferences and symposia documented in earlier issues of the Newsletter.

The larger meetings were in Albany, Adelaide and Sydney. That in Albany was memorable for me in that we walked in the undisturbed vegetation collected and drawn by the expedition and could even stand where William Westall had made his famous drawing of King George Sound – hardly changed after 200 years. In Adelaide, there was the Encounter 2002 conference with a beautifully produced book to go with it. And on top of all that there was as a very significant exhibition at the Herbarium. I cannot over-emphasize the importance of the work of Robyn Barker in both that and the Encounter book. In Sydney we had the opportunity again to walk in areas undisturbed since Brown had been there and to peer down his microscope brought out to Australia (the first time it had left Britain) by David Cutler of the Linnean Society of London. Thrilling stuff!

But perhaps it was Queensland, where I gave more lectures than anywhere else, that had the

‘hairs-on-the-back-of-the-neck’ experience: to cross by boat with John Clarkson the Pennefather River and to scramble up the shore with Robert Brown’s list of plants seen there two hundred years before and to be able to tick them off as we moved into the woodlands – it was almost surreal. And on top of that to be the first botanists to collect since he had been there exactly two hundred years before!

Also in Queensland at Weipa (where there was a huge turn-out considering the size of the place), I was greatly moved by a local Aboriginal man who took me on one side to explain how that very day he had been telling his son about one of the mistletoes I had shown as a slide and grew in his backyard. Ferdinand Bauer had sketched it, probably on the Pennefather again exactly 200 years before.

It was all very moving for me, as indeed is the second and the more important reason why I am so honoured to accept this Medal: because it comes from my peers as practising Australian botanists. Thank you again!

The Mabberley lecture tour

Albany 9th-11th Dec 2001
(*Investigator 200*)

- “Robert Brown’s later career”
- Lecture on Bauer

Esperance 12th Jan 2002 (not ASBS sponsored)

- Lecture on Brown and Bauer

Adelaide 21st and 22nd Mar (*Encounter 2002*)

- “Robert Brown: *The Investigator* expedition and continental science, the encounters moulding a brilliant career”
- “Ferdinand Bauer: consummate artist for demanding scientists”
- Additional lecture on Bauer to Art Gallery conference (not ASBS sponsored)

Melbourne 18th Apr 2002

- (Victoria’s plants first revealed: Robert Brown in Port Phillip in 1802 conference)
- “Robert Brown and *The Investigator*: a voyage to last a lifetime”
- “Ferdinand Bauer: nature revealed, art concealed”

Tasmania – no details

- 2 lectures.

Canberra 24th Apr 2002 (*Robert Brown symposium*)

- “To the Pantheon and back again: the career of Flinders’ Naturalist, Robert Brown”
- “The exquisite eye of Ferdinand Bauer” (at the National Library)

Sydney 8th-10th May 2002

(*Robert Brown 200* conference)

- Introduction to session on Brown’s lasting influence on botanical systematics
- “Robert Brown, Flinders’ naturalist”
- “Ferdinand Bauer, the Leonardo of Natural History”

Gladstone 2-4th Aug 2002

- “Ferdinand Bauer: unsurpassed illustrator of natural history”
- “Flinders’ Naturalist: Robert Brown in Australia and after”

Brisbane 5th Aug 2002

- “Ferdinand Bauer: art and science united”
- “Flinders’ Naturalist: Robert Brown in Australia and after”

North Queensland locations

Townsville 26th Oct 2002

Cairns 28th Octr 2002

Pennefather River 1st Nov 2002

Weipa 2nd Nov 2002

Cooktown 4th Nov 2002

- “Flinders’ Naturalist: Robert Brown in Australia and after”

Darwin 11th – 12th Feb 2003

- Ferdinand Bauer: Flinders’ natural history painter”
- “Robert Brown: Flinders’ naturalist and Darwin’s tutor” (this was also the inaugural *Darwin Day Lecture*).

Articles

How Swedes celebrate Linné

David Morrison

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In a previous issue of this *Newsletter*, you may have been surprised to notice a brief note by myself about "How Swedes celebrate Linnaeus". At least you should have been surprised, because I was. It was presumably put there by a wily editor who was trying to get me to write something more detailed upon the subject.¹ Well, we have just had Linnéveckan (Linné Week) here in Uppsala, so I might as well mention a few things now. Sometimes I escape from my Mac for a day. Scientists very rarely get to go out, but when they do they like to know what they're doing, and so going to a few well-organized celebrations is an acceptable displacement activity.

I will start by pointing out that Swedes never celebrate Carl Linnaeus but celebrate Carl von Linné instead. The latter is the name that he chose when he was raised to the nobility for his services to Swedish culture, and so in Sweden that is his name. Quite why English-speaking people do not follow this lead is not clear, since they almost universally do so for British people. For example, the physicist William Thomson published much of his work under his own name, but he is now almost universally referred to in English by the title that he later acquired, Lord Kelvin, and he is now treated as having always had that name. Another example is James Cook, who was a lieutenant on his first voyage to the southern hemisphere but is invariably referred to using the rank he acquired only later. Perhaps British titles and ranks are considered to be more important than foreign ones, or maybe this treatment simply does not apply to foreigners? Ferdinand von Mueller, however, seems to be an intermediate case, sometimes being given the German title (Baron) that he acquired and sometimes not. Whatever the explanation for these cultural inconsistencies, in this note I am talking about Swedish celebrations and so the Swedish name is the only relevant one.

Quite why Swedes use the abbreviation "Linné" rather than "von Linné" is not especially clear.

¹ It was an oversight for which we have apologised to David. But we will bear it in mind as a tactic to get the Morrison pen flowing free. *Eds.*

Nor is it particularly clear to me why Swedes are so keen to use the French "é" in their names, but it is certainly a common practice here for both family names and personal names. In Linné's case it is rather important, however, since "linne" on its own refers to linen. In other cases I strongly suspect that Swedes see the "é" as having a certain caché, while perhaps the "von" is seen as being a bit *too* pretentious, even for a nobleman – there are limits to these things, after all.

As an aside, you may be interested to know that "Linnaeus" was the family name he was given at his baptism, the latinized form of the ending indicating the academic status of his father, Nils, who had entered the church (*his* father, in turn, had been a peasant farmer). Without this status Carl would conventionally have been given the name "Nilsson" (i.e. son of Nils), and his own children would have been "Carlsson" or "Carlsdotter" (his four daughters, at least, used the name "von Linné" until they married, although his son is also better known in English as "Linnaeus"). Somehow, I just don't think that "Carl Nilsson" has quite the same ring to it.

Linnéveckan was started in Uppsala in 1994 as Linnédagar (Linné Days) but has now grown to be more than a week – this year it was 2–10 August. Uppsala is the obvious place to celebrate Linné, although he was not born here. (No-one famous ever seems to be born in Uppsala, but instead they move here later on – film-maker Ingmar Bergman being the only conspicuous recent counter-example.) Linné grew up in the south of Sweden, and did his early university studies there, at Lund University. He then came to Uppsala to complete his medical studies, before moving to mainland Europe for a few years (mainly the Netherlands). He then practiced medicine in Stockholm briefly (having no success until he became known as *the* doctor for the treatment of venereal diseases, which he did mainly using mercury), before becoming Professor of Medicine at Uppsala University in his mid 30s (which apparently involved the "usual" academic intrigues). He spent the rest of his career here, before retiring to the nearby countryside.

One of the driving forces behind the current Uppsala activities is a man called Hans Odö (Fig. 1), who is prepared to impersonate Linné and speak on his behalf at many of the activities (mostly in Swedish but sometimes in English). He has actually been doing this sort of thing for 26 years now, and spends the rest of his time as a journalist and photographer.

The main finance for the activities comes from Uppsala kommun, which is the local council, but the events are arranged in collaboration with a number of other organizations, including Uppsala turist och kongress (Uppsala Tourist Bureau), Uppsala universitet (Uppsala University), Linnéminnena i Uppsala (Linné Memories in Uppsala), Svenska Linné-sällskapet (Swedish Linnean Society), etc.

Incidentally, Swedes love dressing up in period costume, and in fact they seem to expect it for any activities or localities associated with the distant past. The concept of an open-air museum, a collection of old buildings preserved by being

moved to a single location, was invented in Sweden (at a place called Skansen, in Stockholm), and all such places have people in period costume prepared to talk about life in the relevant times. A similar thing applies to castles (well, manor houses, really) and forts. The notion of walking around at a museum reading signs is one best left to foreign tourists, who expect that sort of thing – Swedes prefer everything to be acted out by someone dressed differently to themselves. This can be a bit tiring for those of us who *are* foreign tourists, of course, even when the whole thing is done in English.

Many of the activities during Linnéveckan were simply ongoing things that were given a Linné or botanical slant during this time, such as art exhibitions (e.g. at Bror Hjorths Hus, which is the gallery of the most well-known artist to have lived in Uppsala in recent times) and viewings of museums (e.g. Museum Gustavianum, which is the main University museum) and libraries (e.g. Carolina Rediviva, which is the main University library and has some hand-written essays by Linné). However, special activities also occurred throughout the week. For example, most days there were walks in the parks led by botanists, with a different location each day. Every weekday morning there was a special public lecture (or two) at the University, covering some aspect of Linné's life or work. There appears to be no shortage of experts on Linné in Uppsala, at any rate.

The remaining activities were more specifically associated with Linné locales. There are basically five physical remaining "memories" of Linné in or near Uppsala. First, there is the small teaching garden, Linnéträdgården, which was created by one of Linné's predecessors (Olof Rudbeck senior) and which he then reorganized along the lines of his new (sexual) classification system as well as ecologically (the latter being a first for a botanical garden, by the way). This garden is now kept as close as practicable to how it was in Linné's time, and it is open to the public every day during summer. Second, there is the professorial residence, which is actually in one corner of the garden. This is now a museum, Linnémuseet, open to the public most afternoons during summer. Third, there is the country residence, Linnés Hammarby, that he bought during his 50s for use during his summer (working) holidays, and where he eventually retired. He also used it as a refuge during times of the usual medical problems that towns were wont to have during that period. This property is open to the public most afternoons during summer, and is worth visiting in its own right as a prime example of an 18th Century Swedish country house, as well as a specific Linné artefact. Fourth,



Fig. 1. Hans Odö in his Linné garb
(from: <http://w1.187.telia.com/~u18702116/om.html>
with permission)

there is another country property that he acquired at the same time as Hammarby, Linné's Sävja. (Linné had quite extensive landholdings to the south of Uppsala in his later life, as he also bought the property of Edeby at the same time). He enlarged the existing building and rented most of it out, keeping two rooms for himself as a retreat from public life. He actually went there unannounced during his final illness, but when finally located he was promptly taken back into town to die "properly". This property is now on the outskirts of the expanding town rather than in the country, and is usually only open to the public by special request, although it was open a couple of times during these celebrations. Finally, there is Linné's grave within the cathedral, Uppsala domkyrka. The stone is on the floor just inside and to the left of the main doors, and Linné is one of the few non-royal or non-saint residents.

Of the activities related to these specific places, each weekday morning started with Linnéfrukost (breakfast) at the First Hotel – Hotell Linné, which is immediately adjacent to Linnéträdgården. This was attended by Hans Odö in his Linné persona, discussing memories. He then took you into the garden to discuss the flower-of-the-day (Dagens Linnéblomma). Work starts early in Sweden, even for a botanist. Later in the day he gave talks at either the Linnéträdgården or Linné's Hammarby (or both, including the evening), based on different aspects of Linné's life and career. At various times during the week, specialists also took tours of Linnéträdgården, Linnémuseet and Linné's Hammarby. Some of the activities were specifically aimed at children, but most of them were for adults. Most activities were during the day, although there were two evenings with events. August is still summer holiday time, of course, so there is no real shortage of participants available. As far as I know, there is no special Linné-related reason why the celebrations are in August – summer just happens to be a good time to do it.

Most days nominally had a theme this year:

Saturday – Trädgårdsdags och spelmansstämma på Linné's Hammarby

This title indicates that the national radio garden shown was broadcast from Hammarby that day, and that there was folk music and dancing there most of the day

Sunday – Kyrkpromenad med Linné

This refers to the walk from Hammarby to the nearby Danmark church that Linné did on Sundays, which was retraced with commentary (it is now a marked footpath, Kyrkstigen), plus some associated churchside activities

Monday – Linnélärjungarnas värld

The talks and activities on this day were about the lesser-known of Linné's pupils (there were

many of them, since Linné supervised 186 theses)

Tuesday – Simprov à la Linné

This was basically children's day, as the main theme this year involved a trip to the local swimming and outdoor activity centre; I have difficulty finding any connection at all between this and Linné

Wednesday – Hotad 100-lapp och unika blomböcker

The first part of the title refers to the fact that Linné and his activities appear on both sides of the 100 kronor banknote, and this is under threat by possible adoption of the euro, which Swedes will be voting on in September (what sane person would name a currency after a kangaroo?); the second part refers to a boat tour to a nearby castle where there is currently an exhibition of historic flower books

Thursday – Kvinnorna kring Linné

The title indicates that the talks this day were about the women in Linné's life, and there was also a visit to a new Linné "memory", the location of the country house (Gränby Gård) of one of his daughters (which is now right next to the largest shopping centre in Uppsala)

Friday – Linnéapostel i lyckliga Arabien

The talks and activities on this day were about the better-known of Linné's pupils, who were usually called the "apostles" (about a score of his students went on long collecting trips, not all of them returning safely)

Saturday – Farbror Linné berättar

A lighter day, with a talk for children from "uncle" Linné about life in the 18thC, and a more humorous talk about Hammarby

Sunday – Vandra i Linné's fotspår

A long country walk (see below), followed by the placing of flowers on Linné's grave (a bunch of sunflowers from Hammarby, which is seen as a typically Swedish flower, plus half a dozen mixed bunches from those present), to end the activities.

The most popular of the activities conducted by Linné himself in Uppsala were his "Herbationes Upsalienses", not a new idea but certainly taken by him to a higher plane. He first described these in a student thesis of 1753 (a short booklet written by Linné but defended by a student named Anders Fornander), and they consisted of country excursions for his own students but in which the whole town (especially other students) could also take part. This was apparently something akin to treating nature as popular entertainment, although the serious aim was to find and collect as many species as possible (animal, vegetable and mineral). The walks took place on Wednesdays and Saturdays during the

summer (June is listed in the booklet as a good month for most of the flowering), starting at 7 am and finishing at about 9 pm, along one of eight selected routes out into the countryside, and they could attract a couple of hundred participants or more. Although the collections had their classification discussed and were entered in the formal excursion record (an updated version of the thesis listing the known plant species was published in 1756 as the third part of the series *Caroli a Linné Amoenitates Academicae*, and this was updated again in 1764 and 1787), there was also apparently much picnic-type activity, as well as returning home noisily late at night, so that not everyone in town was necessarily best pleased (least of all the other professors, whose students were taking part).

During the current celebrations there were actually several possibilities to “vandra in Linnés fotspår” (walk in Linné’s footsteps), although none of them attempted to emulate the activities of the original trips. These excursions included the Kyrkpromenad, referred to above, Linnélunk, a fast walk along Uppsala’s river (Fyrisån, the Fire and Ice River, a romantic name if ever there was one), Vaksalavandringen, a 2-hour walk to the north-east of Uppsala (based on number 6 in the booklet), and Jumkilsvandringen, a 5-hour walk in the north-west of Uppsala (number 8 in the booklet, to a swampy area about 15 km from Uppsala, which required an overnight stay in Linné’s day). At normal times, there is also a marked footpath called Linnéstigen that leads through the town forest (Stadsskogen) into the valley west of Uppsala, which was one of Linné’s more popular walks (based on number 1 in the booklet). His own favourite walk seems to have been south of the town, past Sävja and then east to Danmark (excursion number 4), which is why he later bought land there. (“Herr Präses” is one of the few people named in the excursion booklet, being mentioned as the very co-operative owner of both Sävja and Hammarby, a subtle reference to Linné himself.)

I have noted before that within Sweden Linné is more renowned for his careful documentation of Swedish natural history and culture, which he did mainly on a series of five long journeys that he made intermittently between 1732 and 1749. These tours were actually sponsored in the hope of finding new resources that could be exploited by the government, but during his first trip, to Saamiland (or what the less politically correct of you probably know better as Lappland) at the age of 25, Linné tried the hitherto unheard-of approach of actually talking to the locals and trying to learn from their experiences, and thus single-handedly invented the study of ethnology (in particular ethnobotany). Previously, all

northern peoples had been treated as quite literally being on the fringe of civilization and thus not worth bothering with from the superior European perspective. For example, the Norwegians had failed to permanently occupy Greenland precisely because they ignored the way of life of the locals, the Inuit (or what the less politically correct of you probably know better as Eskimos), and tried to carry out inappropriate European agricultural practices instead. As all of you know from personal experience, the British did precisely the same thing just about everywhere they invaded, both before and after Linné’s time, but with much more success, and thus have the unworthy distinction of having destroyed more biodiversity on more continents than anyone else. It apparently took someone with Linné’s scientific curiosity to want to learn from the locals rather than simply declaring the place “uninhabited” (and thus denying even the existence of anyone to learn from). Interestingly, the written account of this first trip was not published until after his death, only the *Flora Lapponica* (1737) seeing the light of day. None of his travel books actually became big sellers in Sweden until long after his decease, but they are currently still available and still read.

Anyway, current newspaper articles are far more likely to refer to these ethnographic activities than to Linné’s more strictly scientific ones. As a simple example, I was recently in a town called Alingsås, and the Friday newspaper (*Alingsås Tidning*) for some unexplained reason had on page 2 (right next to the editorial) an article explaining that the latin names of plants do actually have meaning, listing some of the more common generic names and specific epithets along with their Swedish translation. However, the picture used to illustrate the article was the title page of one of Linné’s travel books, which I have reproduced here (Fig. 2). For those of you who cannot read the fancy script, it says “Wästgöta Resa”, the book being about his penultimate trip, to the province of Västergötland in 1746. This illustration has nothing whatsoever to do with the text of the article, but has much meaning to the people of Alingsås, since this town was one of the principal places visited by Linné on that tour. Incidentally, he apparently didn’t like it much although he wrote with enthusiasm about many mercantilist things there – Alingsås was a “model” for an industrial town of the time, and Linné used to preach something much closer to romantic primitivism. There was also the continual rain on that particular tour, of course, which is a special feature of living in northern Europe (as the British have also noticed). Alingsås’ only other claim to fame is being the location of the cultivation of the first

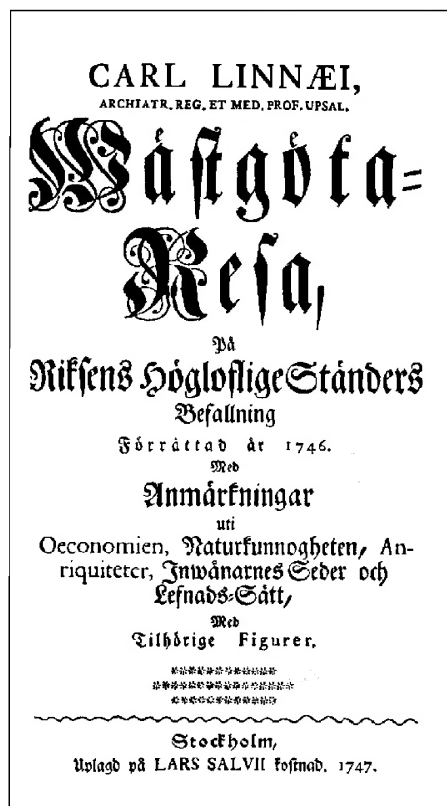


Fig. 2. Title page of one of Linné's travel books "Wästgöta Resa".

potato crop in Sweden, in 1724, a critical event for Swedish culture given the subsequent importance of potatoes in the Swedish diet (rivaled in Swedish life only by cultivated strawberries).

As an aside, Swedish newspapers, magazines and books never refer to "scientific names" for organisms but always to "Latin names", as I did above. This reads rather oddly, of course, since there could be hundreds of Latin names for any one taxon but only one scientific name. Furthermore, they usually insist that botanists still use Linnean classification (which we long ago abandoned; even Linné spent time searching for a natural system) rather than merely Linnean nomenclature (which I think is currently the biggest millstone round the neck of systematics as a science). Interestingly, I have here a copy of the 1945 edition of Björn Ursing's book *Svenska Växter* (Swedish Plants), previously the country's standard botanical identification guide. This

reproduces "Linné's Sexualsystem" on the page opposite the "Naturligt System", and then seriously proceeds with two keys to the families, one for each System. So, maybe the media are right after all (at least if you can't tell the difference between identification and classification, which my students especially used to have trouble with).

Also, Linné is frequently referred to in the media as "Blomsterkungen" (The Flower King), and the only scientific work of his that they ever mention is his botanical systematics (which, it is true, was his main work). Apparently there is no idea that he named animals as well, and the *Systema Naturae* is almost unknown compared to the *Species Plantarum*. The latter book is celebrating its 250th anniversary this year, of course. There is not much fuss being made about it, but there is a commemorative conference (22–24 August) here in Uppsala, which you may hear about elsewhere.

The only other Linné-related activity that I have come across, tenuous though it is, is the recent release of a new line of mineral water by Spendrups Bryggeri, a large Swedish drinks company. The line, simply called "Linné", is based on water from the Carl von Linné Spring at a place called Råå, near Helsingborg. I have been unable to trace any particular connection between Linné and the name of this spring. However, the drink itself, which comes in natural, raspberry, elderflower or apple flavours, is non-carbonated and is low in sugar (i.e. 2.5%), for the modern active lifestyle (according to the advertising).

This leaves the question of how many people actually turned up to the various events during Linnéveckan. The simple answer for this year is "variable". Clearly, the celebrations would not be in their tenth year if there were not enough participants to sustain them. Some of the events attracted a couple of hundred people (e.g. the music and dancing on the first Saturday) while others were planned to be for only a dozen (e.g. some of the building tours) and some only attracted a dozen anyway (e.g. the breakfasts). I attended several events, some with 40–50 other people also in attendance and some with only a couple during the time I was there. Linné was 10 minutes late for his talk – if a professor was this late in Australia the students would have long gone, but perhaps they were expected to be more respectful in his day. He was apparently even later for his final talk, making reference to the "akademisk kvart", which I am told is the right of all Swedish professors to start their classes a quarter of an hour after the scheduled time.

All in all I think that Linnéveckan was considered to be a success this year, and it will definitely continue into its eleventh incarnation. There were

certainly enough activities to keep even the most ardent Linnéophile happy every day, provided they can speak Swedish. I enjoyed the events that I attended. The Linné-led talks were entertaining, as well as scientifically accurate, which is something all too rarely encountered when science is presented to the general public.

As an ending, I might point out that Carl von Linné may be Uppsala's favourite son (in fact, he most definitely *is*, as well as being the only Swede in the *Time* list of the most "important" people of the last millenium), but he is not the only famous scientist to have worked here. After all, Uppsala University's founding was very early, in 1477, so there have been plenty of opportunities. I suppose that nowadays the other

two best-known scientific names from Uppsala are Anders Celsius and Anders Ångström, both of whom have units of measurement named after them (just like William Thomson, referred to at the beginning of these notes). Incidentally, in Sweden we care about how cold it is getting rather than how hot it is getting – every Swedish kitchen has a thermometer outside the window, which is carefully consulted when dressing and *before* opening the front door. So, Celsius' original temperature scale had water boiling at 0 and freezing at 100, meaning that increasing numbers indicated increasing coldness; only later did people reverse the scale (because in Celsius' scheme the most commonly used temperatures thus had 2–3 digits instead of just 1–2).

In search of new species of *Doryanthes*

Chris Quinn

Royal Botanic Gardens, Sydney

The Gynea Lily (*Doryanthes excelsa*) is such a conspicuous species that the possibility of a yet undescribed species on the central coast of NSW was initially treated with some skepticism. I received a request to investigate such a report from a member of the public via colleagues at the University of New South Wales early this year. My informant was Ms Robyn Henderson, a keen gardener, amateur naturalist and long-time resident of the Nelson Bay area on Port Stephens. She advised that there were three separate populations of a form of Gynea Lily in which the flowers were formed all down the erect inflorescence axis. She had collected seeds in previous years and had established young plants in her garden, but none of these had yet flowered. She also reported there to be some rather subtle difference in leaf lamina (more uneven or "crinkly") and growth form (denser at the base). Initially this sounded rather like *Doryanthes palmeri* (the Giant Spear Lily), in which the flowers are densely clustered along the distal portion of an axis that tends to bend sideways and often droop near the end. Even so, this would be a significant record, since that species is only known from the Mt Warning area in NSW. But again, it sounded rather unlikely that a species that prefers steep cliff faces on granite, rhyolite or basalt rock, mostly in montane heath communities (Perry 2001) would also occur near Nelson Bay. And Robyn insisted that the inflorescence axis was indeed quite erect and showed no tendency to droop to the side, and that the flower clusters were more widely spaced than in *D. palmeri*.

Robyn also reported that one of the localities was on land which had been used by the army for a training camp since before World War II, but

which had just been sold for a housing subdivision, and hence was under immediate threat.

My request for specimens to examine yielded a box containing a small part of a dried fruiting cluster and some seeds. These giant lilies are rather challenging when it comes to pressing a specimen. I was told that none of the plants was then in flower, and it would be some months before flowers were expected (around September). My inspection of plants of both species in the Royal Botanic Gardens, Sydney, failed to reveal any reliable vegetative character to separate them. The venation in *D. palmeri* tended to be at a wider angle, but there was a degree of variability in leaf form in both. Shortly thereafter I received a colour photograph of one of the plants in question, which markedly increased my enthusiasm. It showed a giant lily in which the inflorescence axis was erect and bore widely spaced clusters of flowers much further down the axis that is seen in *D. palmeri*. Further, what could be seen of the floral morphology was much more like *D. excelsa* than *D. palmeri*. At this stage I raised the status of the report to putative new species, and started to spread the word around at afternoon teas about this interesting find. I had to work hard to overcome the incredulity of some colleagues, but I think in the end I had them hooked. Certainly Tim Entwistle was asking me about when I was going up, and was keen to refer to the find in one of his regular broadcasts.

On the strength of this, Robyn contacted NSW National Parks and Wildlife staff and the local Council about the possibility of a putative new species of restricted distribution being under

threat of development at one of the three known sites, and received permission to remove some plants to her garden and to RBG Sydney.

In an effort to get an answer before September, we decided to DNA sequences. I sent Robyn a ziplock bag containing anhydrous silica gel, and asked her to take a small leaf sample off a plant of her putative new species, and to make certain she recorded which plant it came from for future reference. In the meantime, we sequenced a region of the chloroplast genome (the *trnL-F* spacer and the nearby *trnL* intron) from material taken from one of the plants of *D. palmeri*, so that we would be able to compare the new material with both existing species. Unfortunately the sequence obtained fell within the range of variation for three such sequences from *D. excelsa* lodged in GenBank. This meant that this region was not sufficiently variable to distinguish these species. Subsequently we tried to isolate the more variable ITS region (of the nuclear genome) from both species, but failed in all attempts. The work being peripheral to our research interests, we decided to await the flowering season.

Doryanthes excelsa first came into flower in the Gardens during June, but Robyn reported no flowering at her sites. In early September the first *D. palmeri* came into flower in the garden bed along Hospital Road, behind Parliament House, and I made some observations of the floral morphology of both species. Robyn reported that her plants had also started to flower. So on the following Tuesday Darren Crayn and I made the trip north to examine and collect this botanical novelty. Along the way I commented to Darren that I would be interested to see what happened at the apex of the inflorescence axis, since the one Robyn had photographed had clearly been damaged, and terminated abruptly.

We found Robyn's home about 9.30 am, and shortly afterwards set out for the population on the ex-army land, together with Robyn's mother and sister as interested spectators. There was a dense population of giant lilies under an open forest canopy of mostly *Angophora costata*. Several of the plants were in flower, and most

were typical Gynea Lilies, with an erect naked axis bearing a dense terminal cluster of flowers. But sure enough, scattered through the population were aberrant plants with flowers dispersed all down the axis. Immediately I started to have serious doubts about this exercise. I was expecting distinct populations, rather than aberrant individuals. As I neared the first plant I noticed it also had the apex missing. Indeed I found it had been neatly sawn off. It had been sawn off in every case, at all three sites! Clearly someone had been souveniring the flower clusters, probably for sale to florists. It has been done over several years at such a frequency as to suggest a steady trade in the flowers of this protected species. We could detect tracks through the scrub to several plants that had only recently been cut. The plant's response to this decapitation was to flower in the axils of the bracts all down the remaining axis. It seemed that this response was often, if not always, delayed until the following season, so that they came into flower at the same time as new inflorescences appeared. We christened it *Doryanthes excelsa* forma *decapitata*.

Robyn was rather depressed, and I prescribed a stiff drink to revive her spirits. But most new species these days come from reports from keen amateurs, and all warrant proper investigation. I found it an interesting case. I also learned that had I been more searching in my questions at the start, I might have avoided what turned out to be quite an enjoyable day in the field.

Back at the Gardens, Tim Entwisle found our story a source of great mirth. He vows to never let me forget it.

Finally, have any readers come across this response in the Gynea Lily before? If so, could they let me know by email (chris.quinn@rbgsyd.nsw.gov.au) or snail-mail.

Reference

Perry, D.D. (2000) The distribution, relative abundance and conservation status of *Doryanthes palmeri* (Doryanthaceae) in New South Wales. *Cunninghamia* 7: 183-193.

Some Muellerian artefacts

Bill Barker

State Herbarium of South Australia

Over the years I have come across several poorly known or personal items relating to Ferdinand Mueller.

They have come to light at a time when my elder brother John has been collating and deeply researching our family history.

A becoming photo

Most pictures of Mueller are not very complimentary. At best he is portrayed as studious, at worst a frumpish old man.

While visiting the Herbarium in Florence (FI) in 1985 I was shown a photographic album with botanists of the 19th Century and permitted to photograph a remarkably youthful and handsome portrait of Mueller in all his finery (Fig. 1). He holds a specimen, possibly of *Acacia*, and a book, title illegible in my photo. The picture is coloured, though largely faded apart from the red of the ribbons and gold in the medals. The upper part of the same picture appeared in Moyal's (1986) *A bright and savage land*; hers came from the Mitchell Library, Sydney.

Links with my forebears

To say I was thrilled a few years ago to receive from a perceptive aunt an intricately carved silver bouquet holder inscribed by Mueller is an understatement (Fig. 2). It bears the words:

Miss E. Pasco
24-12-89
Baron von Mueller

Emily Francis Pasco was my great-great-grandfather Dr Thomas Barker's grand-daughter and was godmother of my father Hugh Crawford Deane Barker. The silver piece was amongst several small items that she gave my father's family.

Historical records indicate that the Pasco family collected some plants for Mueller (Sara Maroske, pers.comm.).

The family's links with Mueller, and with maritime history and exploration, extend further. The Barker family first settled in Australia through Dr Thomas Barker in the late 1860s and his daughter Frances Emily married Crawford Pasco, son of Rear-Admiral John Pasco². Boarding at Port Essington in 1839, Crawford Pasco was mate during the *Beagle*'s northern Australia survey under Stokes's command, and later became Lieutenant and Commander (Hordern 1992; Pasco 1897). In 1852 he emigrated to Victoria, was appointed Superintendent of Water Police under Latrobe (he

² As Lieutenant and signalman on the *Victory*, John Pasco flagged Nelson's dying command "England expects every man will do his duty". He also captained H.M.S. *Hindustan*, which in 1810 took Governor Macquarie to Sydney and returned the out-of-favour Bligh (e.g. Hordern 1992).



Fig. 1. A copy of the coloured photograph of Ferdinand Mueller in the Herbarium in Florence, Italy.

Ph. Bill Barker

had a reputation for leniency to seamen in particular), and was sent as a Police Magistrate to northern Victoria (Dr J. Barker, pers.comm.). Crawford Pasco had links with Mueller through his involvement in scientific and geographical societies – he was a President of ANZAAS and the founding President from 1886 of the Antarctic exploration committee (Mr W. Pasco, pers. comm.). And so he received a traditional Muellerian salutation of friendship accompanying a portrait of the Baron himself (Fig. 3).

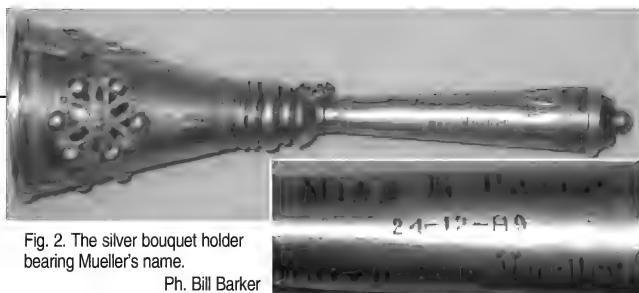


Fig. 2. The silver bouquet holder bearing Mueller's name.

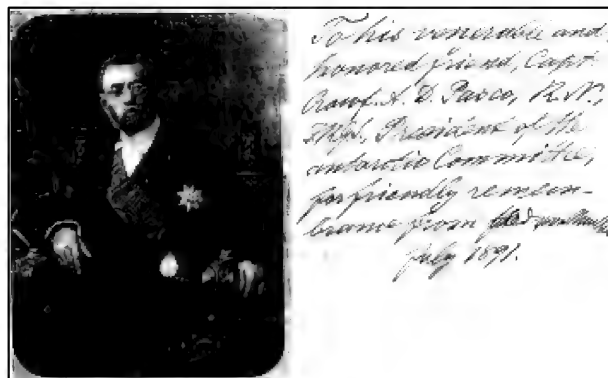
Ph. Bill Barker

References

- Hordern M. (1992). *Mariners are Warned!* John Lort Stokes and H.M.S. Beagle in Australia 1837–1843. (Melbourne Univ.Press).
- Moyal A. (1986). *A bright and savage land.* (Collins, Sydney), p. 150.
- Pasco C. (1897). *A Roving Commission.* Naval Reminiscences. (G. Robertson, Melbourne).

Fig. 3. Mueller's greetings to Crawford Pasco, right, written on the obverse of the photograph on the left.

Reproduced with permission of Warren Pasco



News

Changes at the top in Sydney

Tim Entwisle has been elevated to Acting Director of the Royal Botanic Gardens and Domain Trust, Sydney, with Director Frank Howarth moving to head Science Policy and Research in a new Science and Conservation Department. The Director now reports to the Chief Executive of the new Department.

Tim's position as Director of Plant Science has been filled for the moment at least by Barry Conn.

The announcement came out of the blue just prior to the annual meeting of the Council of Heads of Australian Herbaria, with Jim Ross taking over as Chair.

ASBS member heads a new University super-school

Professor Bob Hill has accepted a 5-year appointment from 29th September 2003 as Head of School, Earth and Environmental Sciences at the University of Adelaide. This is a new school incorporating four faculties previously recognised at the University.

Bob returned to the University of Adelaide in 1999 as ARC Senior Research Fellow, later combining this with his role as head of science at the South Australian Museum where he often acts as Director in Tim Flannery's absence. He retains this latter position, strengthening the alliances between the two institutions.

Miscellanea

Last chance for proposing amendments to the Botanical Code

Proposals to amend the International Code of Botanical Nomenclature need to be submitted to *Taxon* by the end of this year in order to be considered at the nomenclatural session at the next Botanical Congress in Vienna and in the balloting that precedes it.

New popular book on plant collectors

Note the special offer to members in the flyer in this issue for a new popular book recounting

exploits of botanical collectors. The author is one of our members Philip Short of Darwin. A review is on the way.

New email addresses for "@ea.gov.au" in Canberra

Environment Australia has changed its name to the Commonwealth Department for Environment & Heritage. All email addresses that have had a "user.name@ea.gov.au" format, reflecting an institutional association with Environment Australia, such as those relating to ABRS (see Director's report) and to certain staff of the Australian National Herbarium (*not* those with an "@csiro.au" address), need to be changed to "user.name@deh.gov.au".

Book reviews

Another diary from *The Investigator*

Review by Robyn Barker
State Herbarium of South Australia

Sailing with Flinders: the journal of seaman Samuel Smith, *Edited and with an introduction by Peter Monteath*.
Published by Corkwood Press, Reply Paid 1313, PO Box 237, North Adelaide, South Australia 5006.
(email: corkwood@bigpond.net.au)
Bibliography. ISBN 2-876247-13-4.

For another view on the voyage of the *Investigator* in Australian waters, here is a slim volume representing a record of the voyage made by a seaman on board the ship. The original diary is held in the Mitchell Library in Sydney and was apparently written as a narrative in about 1813, from notes kept during the voyage. Presumably interest in the voyage would have been reignited by the return of Flinders to Britain after his incarceration on Mauritius, and perhaps the earlier publications of Brown and Bauer, although this was certainly not reflected by sales.

The journal adds nothing to our understanding of the scientific work of the voyage – indeed you would be scarcely aware that this was happening from the account. There are very occasional mentions of “our Gentlemen” (p. 31) going ashore but only “Mr Good the miner” (p. 57) is mentioned by name, because he was involved with the unfortunate meeting with the Aborigines on the north coast. Again on the north coast, after the meeting with the Malays, the entry reads

Each Day we got under Weigh, & on Approaching an Island boats was Immediately sent on Shore with Captⁿ & the Bottanist. If found worth perticulour Investigation the Anchor is let go, & remain until the Business is done; in this manner this Month was spent. (p. 61, as it appears)

Apart from an apparent fascination with “Shirks” [sharks], any wildlife encountered was apparently of little interest except as a source of food or clothing.

Much of the account is taken up with descriptions of the everyday workings of the ship and on many occasions “Nothing perticulour Occurr’d” for some time, leaving many gaps in the narrative. There are however reasonably full descriptions of the first encounters with a number of aboriginal groups, the encounter with the French is dealt with briefly and there are some observations on “Sidney” as it appeared at the time. Perhaps the more interesting part is the account of the shipwreck of the *Porpoise*.

In summary, here is another account of Flinders’ voyage, interesting because it is from a participant and from another perspective. Read it for this but don’t expect any addition to your understanding of the scientific practices and outcomes of the voyage. Despite being crowded on a small ship, scientists and seamen existed in a different world.

Wanggalili: Yindjibarndi and Ngarluma plants

Review by Stephen van Leeuwen
Conservation & Land Management, Karratha, WA

Wanggalili (ISBN 1875 946 543) is available for \$22.00 directly from the Juluwarlu Aboriginal Corporation (PO Box 111, Roebourne, WA 6718). Alternatively, it can also be purchased from the Wangka Maya Language Centre in Port Hedland (PO Box 2736, South Hedland, WA 6722).

The traditional lands of the Yindjibarndi and Ngarluma people covers the West Pilbara from the Fortescue Valley at the foot of the extensive Hamersley Range across the subdued but nevertheless rough Chichester Range to the mangrove-lined, cyclone-prone northwest Australia coastline between Whim Creek and the

Burrup Peninsula. Within this vast and harsh region the Yindjibarndi and Ngarluma people have lived for thousands of years and, as with many other Ngardangarli (Aboriginal) people, they have developed a unique traditional lifestyle that is underpinned by significant ethnobotanical knowledge.

A small proportion of this knowledge has recently been obtained from Elders and documented in the book ‘Wanggalili: Yindjibarndi and Ngarluma Plants’. Wanggalili (Yindjibarndi for *Trachymene oleracea*) describes the traditional uses for 100 plants found in Yindjibarndi and Ngarluma country. These

plants form an integral part of the culture within Yindjibarndi and Ngarluma communities and are incorporated into skin systems, which dictate how people, plants and animals are interrelated. The plants presented in Wanggalili include those which make up a significant part of traditional diets; are used as medicine to cure infections and promote good health; are important as building material for shelter and the provision of wood for implements and weapons; and are used for making ornaments and decorations for ceremonies.

This 128 page, A5 book provides Yindjibarndi, Ngarluma, common and scientific names for these 100 plants, which in all instances are illustrated with at least one colour picture of the species. Plants within the book are grouped into the categories of Artefacts & Ceremony, Bush Medicine and Bush Tucker and the pages associated with these categories are colour coded. The book has an extensive content page listing and indexes to common names, scientific names, medicinal uses and food. A useful guide to pronunciation and the meaning of some Yindjibarndi and Ngarluma terms is also provided.

The Juluwarlu Aboriginal Corporation in Roebourne published Wanggalili with financial assistance from the Aboriginal Land Trust,

Department of Indigenous affairs, National Heritage Trust and Indigenous Land Council. The primary aims of the book according to the principals of Juluwarlu, Michael Woodley & Lorraine Coppin, were to capture traditional knowledge from Elders before it was lost so that this information could be passed onto future generations and to demonstrate to the wider community that Yindjibarndi and Ngarluma languages and cultural practices are very much alive.

Interesting anecdotes in the book include the use of the greasy substance extracted from the fruits of *Santalum lanceolatum* and *Owenia reticulata* after roasting in ash to make hair long, thick and black – perhaps a remedy for the progression from lanate through tomentose to puberulent in some members of the male population! Another is the use of ash made from the bark of *Acacia inaequilatera* and *Sesbania formosa* to keep babies and children cool when mixed with animal fat and applied to the skin – perhaps a good idea when the airconditioning fails at 50°C but oh what a mess! Finally, the smoking, until they are ready to be good, of disrespectful and problematic children in the fumes generated by burning *Acacia monticola*, *A. arida* or *Calandrinia polyandra* foliage is interesting – perhaps a treatment for recalcitrant colleagues and grant administrators!

Conference report

Celebrating 150 years for MEL and Australian plant research

The weather wasn't fantastic – typical drizzly Melbourne – but the conference was universally enjoyed by those who were able to attend.

On the Monday morning a brief welcome was extended to attendees by Dr Philip Moors, Director of the Royal Botanic Gardens, Melbourne. This was followed by the keynote opening address by Professor Peter Stevens of Missouri Botanic Gardens on a consideration of the problems with both the current nomenclatural system and the proposed new uninomial system the PhyloCode, and the need to recognise the requirements of non-systematist users.

Sara Maroske's short presentation on Mueller's attempts at a plant classification system, one which he used in his Systematic Censuses of 1882 and 1889, was, disappointingly, more or less all the history given in the conference. There was very little attempt to tie the National Herbarium of Victoria into any of the presentations with the very obvious exception of

Peter Neish's surprise packet in the AVH session (Fig. 1) No doubt this will be rectified when Helen Cohn's book on the history of the Herbarium appears, but it would nevertheless have been good if the importance of the Herbarium and its collections had received some acknowledgment during the conference.

The rest of the first day was taken up with sessions on the problems with large genera, convened by Russell Barrett of Kings Park Botanic Gardens. The presentations ranged widely across a number of families, but particularly involved the legume and composite genera, orchids, *Melaleuca* and parts of the Malvaceae. The final presentation by Mike Crisp on a "basal" problem had presenters worrying about their usage of this term for the next few days. An attempt to have a discussion about the problems revealed in the large genera presentations largely foundered because of the lateness of the hour and people wishing to attend the opening of the Bryophyte Exhibition at the Botanic Gardens.

Much of the Tuesday was taken up with a mini-conference on the Myrtaceae: Pauline Ladiges gave the key-note address on the biogeography and phylogeny of the major groups, followed by a series of papers on the molecular phylogenetics of several alliances, some floral and fruit developmental studies, and a consideration of the composition of essential oils in delimiting taxa. Kelly Shepherd completed the session with an account of the samphires, which convinced many in the audience that these plants could be interesting after all.

The final session for the day was a polished performance by founding members of HISCOM and Chair of CHAH Tim Entwistle on Australia's Virtual Herbarium (AVH). A history of the project, its management, the design philosophy and its links to other global initiatives were all covered. Discussion ran freely for some time after these presentations.

The first part of the Wednesday session was the delivery of the ASBS Nancy Burbidge Memorial lecture by Bob Hill, followed by the presentation by the President of the Society, Steve Hopper, of Burbidge medals to Bob and also to David Mabberley (see pp. 1-3). David was awarded a medal for his stalwart efforts in presenting his numerous Brown and Bauer lectures around Australia over the span of 14 months. His acceptance speech is reproduced elsewhere in this issue of the Newsletter.

Following some contributed papers on charophytes, ferns and apomictic taxa, there was a session on the Ericaceae. An overview paper on the phylogeny and classification of the family in the broad sense was presented by Kathy Kron of Wake Forest University, North Carolina followed by presentations on some of the Australian members, more familiar to us as the Epacridaceae.

The afternoon session was given over to a session on *Acacia*, the highlight of this being Neville Walsh's account of the remarkable new suite of rare infertile Victorian *Acacias* of restricted range.

The standard of offering, in spoken and poster presentations, was high. The majority had a cladistic basis, where the goal was a phylogenetic classification, and there was a general awareness of the need to seek consistency between morphological and multiple gene trees to achieve



Fig. 1. Ferdinand von Mueller, plant systematist before his time?
Collage by Peter Neish

this. There was also a sense of optimism that we might be able to achieve some resolution of traditionally problematic large generic complexes where there have been seemingly insoluble paraphyletic remnants; there was a common feeling that the lack of morphological and genetic resolution of the clades in these remnants may reflect an active period of diversification in the geological past and that this would often better be reflected in a large monophyletic genus encompassing the readily defined clades previously separated at the generic level.

The Annual General Meeting of the Society followed almost immediately upon the completion of the last session and was remarkably brief under the chairmanship of Vice President, John Clarkson. Minutes of this meeting will be found in the next issue of the Newsletter.

We didn't attend the dinner on the Wednesday evening, but have been told that Tim Entwistle presented a well-received and very entertaining after-dinner speech on titles of botanical articles.

Systematics Forum

On the Thursday evening Prof. Brent Mishler, University of California, led a lively discussion at the Systematics Forum at the Melbourne Museum. Although not primarily down to be a Phylocode discussion – the actual title was “Biodiversity isn't species: the tree of life, rank-free phylogenetic classification, and the future of bioinformatics and conservation” – it largely became this, and many of the other issues he hoped to raise were not covered. He has been asked to expand his thoughts in writing and, if he agrees, we hope to be able to bring you this in the next Newsletter. From the discussion here, and throughout the conference, it was noticeable that

many Australian systematists are not comfortable with the concept of the uninomial and the abolition of formal ranks. But noticeable too, was the predominant silence of the younger generation when these matters are raised – even though they participated freely in other areas of discussion. The outcome of the meeting on the Phylcode in Paris next year is awaited with interest.

Australian Research Council (ARC) presentation

Professor Alan Johnson provided an overview of the ARC and its programmes, drawing on their relevance to systematic botany and mycology and to herbaria, which he saw as falling under the museum banner and so able to participate in ARC programmes. Grant applications in systematic botany and evolution in recent times have been notably few, with mycology a little better off but probably encompassing more than systematics.

6th Australasian Mycological Society conference

The Thursday was given over entirely to the Mycological Society conference. Papers were more wide-ranging than the previous days, although there were still a number of systematic papers, intermixed with ecological, conservation and documentation consideration.

Fungal book launches

Senator Julian McGauran, National Party, Victoria, representing the Minister for Environment & Heritage, launched two ABRs sponsored volumes:

- *The genus Mycena in south-eastern Australia* by Cheryl Grgurinovic
- *Fungi of Australia*, volume 2B, *Catalogue and Bibliography of Australian Fungi 2* by Tom W. May, J. Milne, S. Shingles & R.H. Jones as well as the website:
- *The Interactive Catalogue of Australian Fungi* by May, T.W., Milne, J., Wood, A.E., Shingles, S., Jones, R.H. & Neish, P. to be found at www.rbgs.vic.gov.au/fungi/cat/

Not to be outdone by the Australian fungal community, three fungal books published in New Zealand were launched by Peter Buchanan, Landcare Research, New Zealand. These were:

- *Edible and Poisonous Mushrooms of the World* by Ian R. Hall, Steven L. Stephenson, Peter K. Buchanan, Wang Yun and Anthony L.J. Cole, published by Crop & Food Research, Christchurch, New Zealand, 2003;
- *The Fungi of New Zealand*, Volume 2: *Smut Fungi from New Zealand* by Kalman Vanky and Eric H.C. MacKenzie, and

- *The Fungi of New Zealand*, Volume 1: *Myxomycetes of New Zealand* by Steven L. Stephenson.

The *Fungi of New Zealand* volumes are published by Fungal Diversity Press, Hong Kong (www.hku.hk/ecology/mycology/FDRS/index.htm). Both cost US\$50.

Bryology session

All Friday was given over to Bryology, beginning with an overview by Professor Brent Mishler of the placement of the bryophytes in the overall *Tree of Life* (<http://ucjeps.berkeley.edu/TreeofLife/>) and high level relationships within the bryophytes. This was followed by systematics presentations on the mosses, including the large family Dicranaceae, and southern hemisphere *Bartramia* species, the hornworts and the leafy liverworts. As with the fungal session the day before, a number of ecological papers were presented, these dealing with the diversity of bryophytes in the landscape in Tasmania.

Following the conference, 36 bryologists headed off for the Australasian Bryophyte Workshop held over the next 4-5 days at Rawson Village on the edge of Baw Baw National Park. These workshops are held every two to three years and this time the bryologists were joined by ten mycologists who shared the facilities and conducted their own workshop.

Student awards

As usual, ASBS supported all those student members who presented papers or posters at the symposium, with the presentation of a cheque.

In addition the Royal Botanic Gardens Melbourne awarded two cash student prizes. These were:

- Best oral presentation: Lindy Orthia (Australian National University) – *Mangled boxes: squeezing the Mirbelia group (Fabaceae: Mirbelieae) into a stable genus level classification*
- Best poster: Christopher Dunk (La Trobe University) – *Investigation of Amanita muscaria mycorrhizae on roots of Nothofagus cunninghamii*

Two CSIRO “Encouragement Awards” (a 1-year subscription to a CSIRO journal) were presented to:

- Kelley Shepherd (University of Western Australia) – *A systematic analysis of the Australian salt-loving samphires (subfamily Salicornioideae, Chenopodiaceae)*
- Nicole Vella (Macquarie University) – *The hornwort genus Megaceros: The Australian connection*

Summary

It is worth making a comparison with the *Beyond the Floras* conference of 1996, held in the same lecture theatre at Melbourne University. Computer presentations were in their infancy at that time and the problems experienced then were numerous, not the least of which was the inability of the slide projector to project slides over the distance. At this conference, presentations were invariably in Powerpoint and stream-lined indeed. We have come a long way in a very short time in this field at least!

The only minor grumble would be the cost of registration, higher than we are accustomed to,

but still much less than conferences in other fields. It is fine if you are a member of an institution, but not all members are. We would hope that ASBS will look at some way of offering a conference discount for financial members of the Society, as suggested at an earlier Annual General Meeting of the Society.

It was a good conference and the organising committee of Helen Cohn, Andrew Drinnan, Marco Duretto, Teresa Lebel, Pina Milne, Jim Ross and Frank Udovicic deserve our thanks. They should feel justly proud of their efforts.

Robyn and Bill Barker

Workshop reports

Latin course in Darwin

DNA botanists Ian Cowie, Dale Dixon and Raelee Kerrigan, along with hangers-on Andrew Gibbons and Bob Harwood now claim to know all there is to know about botanical Latin after attending five three-hour classes conducted by Emma Short. Emma is married to Phil Short, whom she met at the Herbarium at Kew when Phil was the ABLO there. At that time she was Emma Powell, the C.E. Powell of Brummitt and Powell's *Authors of Plant Names*. She obviously learnt Latin somewhere along the line, because she can sing various things that are important to remember, just as children sometimes learn the alphabet by singing it.



The workshop participants. Standing in the photo (from left), Dale, Raelee, Bob, Ian, Andrew. Seated, Emma.

The classes were held on five Wednesday mornings, from 9 till 12 with a half hour tea break. Originally the lesson times were supposed to be 9 till 10 and 10:30 till 11:30, but on the first day there was no way Emma could be stopped at 11:30, and even at 12 she would have kept going if a couple of hungry class members hadn't led a walk-out. Noon then became the accepted finishing time, but stopping Emma always remained a problem.

Most of the class had their own copy of Stearn's 'Botanical Latin', but Emma also produced her own thirty-page booklet 'Botanical Latin - Condensed Grammar and Vocabulary' and handed everyone a copy. Homework was also an important part of the course, the first week consisting of declining a list of nouns provided by Emma, and amounting to less than two hours work. However, the second week's homework required a lot more time, and for the remainder of the course DNA staff probably spent more work time doing Latin homework than doing what they were paid to do. It should be pointed out that this was possible at DNA because the boss, Greg Leach, was based in another building. He has now returned to the herbarium, but claims his return has nothing to do with anything that might have happened during the course of the botanical latin lessons.

Here are some brief comments on the course:

- Ian Cowie – has done a lot of taxonomic work and described species, and the course was more valuable as revision, but still picked up new knowledge as well.
- Dale Dixon – has done quite a bit of taxonomic work and described species, but was always terrified of Latin and handed it on to others to do. Now knows better why he was so terrified.
- Andrew Gibbons – no previous exposure to Latin, and was fascinated by the language and the number of English words derived from it.
- Bob Harwood – was in the process of describing species and one of the instigators of the course. Thought he knew more than others in the class and tried to show it.
- Raelee Kerrigan – came into the course knowing almost nothing about Latin, but by the end of the course would have been second only to Ian if an exam had been held.
- Emma Short – was quite nervous about how the course would go, and appreciated everyone's enthusiasm.

Bob Harwood
Northern Territory Herbarium

AVH Representatives Meeting 2003 in Sydney

In June 2003 a meeting was held at the New South Wales Herbarium (NSW), Royal Botanic Garden, Sydney. This was intended as a gathering between project coordinators and/or supervisors, rather than the policy setters of CHAH. The purpose of the meeting was to discuss progress and to work through issues, not to hang out in groovy coffee shops in Oxford St and walk around the garden at lunchtime ... those were just the added fringe benefits.

Samantha Laver and I were the representatives from AD; Katy Sommerville and Joan Thomas from MEL; Brendan Lepschi, Bronwyn Collins and Julie Matarczyk from CANB; Ian Cowie from DNA, Lynette Cave from HO; and several people from NSW at various times. The organiser was Phillip Kodala of NSW, and Barry Conn attended frequently and kept us on the straight and narrow by injecting a touch of reality now and then. BRI or PERTH were not represented.

We discussed each herbarium's AVH Project structure – staff numbers and organisation; office configuration; software; hours spent data processing and on other activities; and impacts of the AVH Project on the overall organisation. We then specifically addressed issues of data processing progress – quantity and quality assurance; taxonomic and nomenclatural validation; geo-reference validation; human resources and OH&S; the resources needed to complete the project; and the issues for herbaria after the data-capture process is completed.

Everyone at the meeting raised issues affecting their institutions ability to carry out the project. Some of these issues were common to all institutions but many were very specific such as location/worksite; software, IT support. This meant that some issues that were very critical for one

institution might not be at all problematic for some of the others.

The meeting came up with some Recommendations and Actions for CHAH and HISCOM. Here is a selection:

- a need for strategies for meeting the seemingly unattainable deadlines
- effective methods of sharing of data between herbaria to be improved
- a consensus census – establish mechanism for creating a national census
- strategies for structure to deal with ongoing AVH issues prior to completion of stage one (that is the data capture of the Australian flowering plants)

In conclusion, the meeting was very well organised and run (fabulous catering) and it was very useful to meet the other representatives and work through issues. Mostly it was great to put faces to names and to be assured that we aren't all just struggling alone in our separate ends of the country.

Helen Vonow
State Herbarium of South Australia



Helen's view of the ARM participants hanging about in Sydney's Botanic Gardens.

ABRS Report

Mary Colreavy
Director, ABRS

Logos

The Australian Government has recently brought in new logos and changed the names of some Commonwealth agencies. Environment Australia is now known as the Department of the Environment and Heritage. Our EA -logo has gone and is replaced with the coat of arms. It is unlikely that the ABRS logo will continue to be used after this year. Our web address and all email addresses have also changed (www.deh.gov.au and abrs@deh.gov.au). The old URLs will work for a while but it is recommended that you update your links.

ABRS Advisory Committee

At a meeting of the Advisory Committee, held in August 2003, substantial revisions were made to the ABRS Grant and Scholarship application forms and guidelines. It was agreed that from 2004/2005, the Participatory Program will fund two types of grants: **Research Project Grants** for which the primary aim is to undertake systematic research on the Australian Biota and **Biodiversity Information Product Grants** for the development or design of a product that aids in the dissemination of taxonomic information to the wider community. Rather than provide a list of research priorities this year, the Advisory Committee decided that all projects and scholarships funded under the Participatory Program should support the Australian Government's National Research Priorities and the Committee has revised the ABRS criteria for applications accordingly. Grant applicants may wish to discuss their proposals with Patrick McCarthy or Annette Wilson (depending on their field of interest) prior to the close of applications.³

The Advisory Committee also spent some time at the August meeting discussing its work program for *Flora of Australia*. The Committee has resolved to review the status of all partially completed volumes and will consider options to advance the publication of completed taxa at the earliest possible opportunity.

Other discussions at this meeting concerned the development of partnerships, fund-raising and the promotion of ABRS activities. These issues will

be pursued more vigorously over the next few months.

Awards

ABRS continues to win national recognition for the outstanding quality of its work:

Verticordia: Turner of Hearts, by E. A. George & M. Pieroni, a joint publication between ABRS and UWA Press, received The Australian Award for Excellence in Educational Publishing, 2003, Tertiary Education Scholarly Reference Category.

We were also very pleased to learn recently that four *Zoological Catalogue of Australia* volumes have won a 2003 Whitley Award Certificate of Commendation for Best Zoological Series. These volumes were published jointly by ABRS and CSIRO Publishing, and are the products of partnerships between ABRS, and authors and their institutions. The research for these books was supported by ABRS funding and our staff provided advice, edited and prepared the copy for publication.

NHT

Continued National Heritage Trust funding this year will enable further work this year by ABRS on a set of taxonomic and biodiversity informatics projects focused on Australian grasses, invertebrates of freshwater streams and rivers and lace-corals (Bryozoa) of Australia's coastal waters.

Publications (since the July newsletter)

T.W. May, *et al.*, *Catalogue and bibliography of Australian Fungi 2, Basidiomycota p.p. & Myxomycota p.p. Fungi of Australia Volume 2B*. Melbourne: ABRS/CSIRO Publishing (2003) ISBN 0 643 06907 0 (v.2B)

Reported in the last newsletter under "upcoming publications", this volume is now available from CSIRO Publishing. It covers larger fungi in the Basidiomycota, along with the larger Myxomycota. Groups covered include bracket fungi, slime moulds, puffballs, earthballs, earthstars, stinkhorns, birds nest fungi, coral fungi, jelly fungi, polypores, and steroid, corticioid and theleporoid fungi.

³ Despite tight timelines we have placed the notices on these grants from the ABRS website at the end of this issue. *Eds.*

Biologue

The next edition of the ABRs newsletter, *Biologue*, will be printed and distributed this month.

Online resources

The *Interactive Catalogue of Australian Fungi* is a joint project of the Royal Botanic Gardens Melbourne and the Australian Biological Resources Study (ABRS) and will be officially launched at a function in Melbourne on 2 October.

The database was originally derived from the printed version of the *Catalogue and Bibliography of Australian Fungi*, published in the *Fungi of Australia* series, by the ABRs. Full data from *Fungi of Australia Volume 2A* has been entered. Partial data from Volume 2B has recently been added, pending publication of the volume, and data from further volumes will be entered as they are published. The database was developed at the Royal Botanic Gardens Melbourne through a grant from the ABRs.

Six volumes of the *Flora of Australia* series will soon be available on the ABIF-Flora website, and more volumes are being added this year. ABRs believes that this new database will be a really valuable tool for botanists and for the public at large. There are many other significant additions and improvements regularly being made to the website.

GBIF

ABRS is seeking funds to establish the Australian GBIF node, a proposal that was supported by CHAH at a previous meeting. At a recent meeting of CHAFC, this proposal was also supported unanimously by members. We are hopeful that ABRs will be given support for this initiative and look forward to working more closely with CHAH through AVH/GBIF.

ABLO

The current ABLO is Dr Roberta Cowan, a Research Fellow at Murdoch University in

Expressions of interest for contract work

ABRS invites interested botanists to let us know if you wish to be included in a register for short-term contract work. Expressions of interest should include:

- Name
- Contact details
- Brief description of your previous taxonomic experience
- Area/s of particular expertise
- The type/s of work you are interested in undertaking, eg
 - Flora writing
 - Editing
 - Proof reading
 - Nomenclatural/bibliographic work
 - Other
- Include indicative pay rates for each of the above types of work
- Indication of your availability over the next year or so.

Applications should be sent to:
Business Manager, ABRs
GPO Box 787
Canberra ACT 2601
Fax: 02 6250 9555
E-mail: abrs@deh.gov.au

Western Australia, who took up the position in December 2002. Miss Annette Wilson from ABRs will replace Dr Cowan from early December this year until the following September. Annette usually manages the ABRs vascular plants subprogram, but while she is at Kew, Ms Katy Mallett will handle ABRs flora enquiries. Katy's direct number is 02 6250 9440.

ABRS is seeking applications for the ABLO position for any period up to 12 months from September 2004. The closing date for applications has been extended to 14 November 2003.

ABLO Report

The latest period has seen a steady stream of ABLO requests. While handling these has generally been straightforward, there have been significant changes in the procedures for handling photocopying and for processing images of herbarium specimens. Under new copyright legislation in the UK (which brings the UK in line with EU), a form stating the commercial usage of the copies must be signed by the person

requiring the copies; the ABLO cannot sign on another's behalf. Discussions are under way with Kew, the Natural History Museum (London), ABRs and CHAH to deal with this situation.

Discussions with the Librarians at the NHM have resulted in the following procedure. The form for a copy request can be found at www.nhm.ac.uk/library/docdeliv.rtf. The cost of

copies is clearly stated on the form. The form must be filled out and signed, then may be faxed directly to the NHM or to the ABLO. Note that the charges for postage will not be added if the forms are sent to the ABLO. Payment for the copy, however, is between the person requiring the copy and the NHM.

For images of herbarium sheets, Kew has changed from Cibachrome prints to scanned images. Once a requested sheet has been located it must be barcoded, scanned and the label data entered into the K HerbCat database. Because the images (even after compression) are over 100Mb they cannot be easily transmitted electronically, hence will be supplied on CDROM. The whole process has been devolved to staff, meaning, in our case, the ABLO. An assessment of the procedure shows that the time taken to process a sheet, from receipt of request to dispatch, has increased by at least four-fold. This will mean a longer period to handle requests, especially for multiple images. It should be kept in mind that the following are the terms and conditions for use of images.

The use of herbarium specimen images supplied by the Royal Botanic Gardens, Kew (RBG Kew) are subject to the following terms and conditions:

- All images are © copyright the Board of Trustees of the Royal Botanic Gardens, Kew;
- Images are supplied for non-commercial, scientific and educational use only;
- Permission from RBG, Kew, is required prior to the publication of any image;
- Users must acknowledge the Board of Trustees of RBG Kew in all published works resulting from image data supplied by RBG Kew.

As many of you know, although I still publish papers on algal taxonomy, much of my work involves management of information, administration of libraries and administration of research projects. I was asked by ABRS to use these skills to streamline the query process for the ABLO and provide a firm basis for the administration of the position. There are numerous areas that require memoranda of understanding between the sponsor of the ABLO and K. These matters are to be discussed at the forthcoming CHAH and ABRS Advisory Committee meetings with input from K.

Early in June we travelled by Eurostar and TGV to Montpellier, southern France. The herbarium of the University of Montpellier 2 (MPU) occupies four floors and contains c. 3 million specimens as well as a substantial library. Unfortunately it is very poorly supported, having a single permanent staff member (Peter Schäfer)

assisted by several volunteers. Their days are fully occupied with basic maintenance, hence they are unable to service loan requests. Only a small proportion of the collection is mounted and (for the Australian material studied), nomenclature is well out of date. An intriguing find was a collection of well-prepared specimens gathered in 1832 in Australia (King George Sound and Sydney) by one Paulin Verdiet. We have found nothing about him and would welcome any information. The library at MPU contains some significant holdings, in particular 150 boxes of reprints on medical mycology.

As the current reporting term closes we are part way through a tour to Finland and Scandinavia, partly to explain our Taxonomic Literature Cryptogamia (TLC) project and to assess library holdings so that we can plan visits in later years. We also have ABLO requests to fulfil. We first visited the Department of Botany, University of Helsinki, where we were made welcome by the staff and retired but still active cryptogamists Timo Koponen and Teuvo (Ted) Ahti. Next stop was Uppsala, Sweden, where we combined work for TLC at the Uppsala University's herbarium with attendance at the Species Plantarum 250 Years symposium. The University's holdings of cryptogamic books and reprints are very extensive. The Naturhistoriska Riksmuseet in Stockholm, where we are now, has even larger holdings, including a significant algal collection.

Species Plantarum 250 Years

This symposium, held at Uppsala University from 22 to 24 August 2003, was attended by some 120 people from 18 countries. Papers (which will be published as a proceedings) covered the topics of historical aspects of Linnaeus' *Species Plantarum*, the future of biological nomenclature, and inventorying the world's flora. Although phanerogams were the focus of most presentations it was pleasing to hear two on lichens and mycorrhiza. I presented a poster on Linnaeus' treatment of algae in the *Species Plantarum*. Judging from the discussion there is widespread concern at the chaos likely to be caused by publication of the *PhyloCode* next year. The concept of the *BioCode* appears to have gone on the backburner. No progress was made on resolving the confusion surrounding the various schemes for preparing world checklists. Perhaps the most practical was 'to hire a second Raphael Govaerts' and so accelerate production of his *World Checklist*.

On the second day there was a tour to Linné's Hammarby (it is necessary to include his name as there are several other places called Hammarby near Uppsala). Although Linnaeus acquired this

property five years after the publication of *Species Plantarum*, he spent most of his remaining summers there and hence did considerable research and writing. His herbarium at Hammarby was built on the hilltop and was originally without surrounding trees as he was concerned about fire (Fig. 1). At the end of the symposium there was a visit to another Linnaean legacy: his traditional botanic garden and former residence in Uppsala.

Besides ourselves, Australia was represented at the symposium by David Morrison, now resident in Uppsala and working at the Swedish Agricultural University. Afterwards, David kindly gave us a tour of Uppsala highlights, including Linnaeus' other house at Sävja, then drove us to Stockholm.

Plans are well under way for a series of events in several countries to commemorate the tercentenary of Linnaeus' birth in 2007. It is also serving as a deadline for the completion of projects such as the Linnaean Plant Name Typification Project.

Visitors

Alec Trendall, formerly Director, Geological Survey of Western Australia, visited Kew early in June to see early collections of *Banksia* from King George Sound. Alec is cultivating most species on a property near West Cape Howe and has published a calendar featuring photographs of his cultivated plants.

Frank Hemmings, John Waterhouse Herbarium (UNSW), called briefly on 16 June to see the herbarium and library.

Andrew Rozefelds, Tasmanian Museum and Art Gallery, visited the herbarium and the Natural History Museum.

Juliet Wege (PERTH) spent three weeks at Kew in June/July, with side visits to the BM and CGE, for research into *Stylidium*. She then flew to Paris and Vienna before heading home.

Graeme Sandral, an agronomist from University of Western Australia, recently led a team of four on a seed gathering mission to the Canary Islands and Cape Verde Islands. The team spent a number of days at K working in the legume collection and with the library resources planning the collecting sites on the islands.

Kerry Carson from University of Western Australia visited London and the ABLO twice during this period. Her work concerns iron transfer in rhizobia.

A number of UK residents such as the great granddaughters of a former Governor of Western Australia Lord Bedford (whose wife painted W.A. wildflowers) and editing staff from Routledge have visited the herbarium as guests of the ABLO.

World Heritage Status for Kew

On 3 July 2003 the Royal Botanic Gardens, Kew, were inscribed on the list of World Heritage Sites by UNESCO. The banners (both digital and actual) proclaiming World Heritage Status were unfurled immediately.

Botanischer Garten und Botanisches Museum Berlin-Dahlem

The closure threatened earlier this year has been averted for the present but the future is by no means certain. According to staff at B, the institution is likely to continue but with a much-reduced staff and services.

Other

In addition to the work outlined above, we have made several day visits to Oxford and Cambridge to continue compilation of TLC. More than 75% of the items entered so far (totalling over 1000) are not in TL-2. We have encountered some fascinating examples of multiple variants of the same work that would lead to different citations depending on which version one is looking at.



Fig. 1. Linnaeus's herbarium at Hammarby, near Uppsala.

At each herbarium visited, Alex has been studying the holdings of *Calothamnus* (Myrtaceae) for his *Flora of Australia* account.

Regular readers of this column will have spotted an omission from the previous report: no mention of the weather. The willpower required has been broken, however, with the recent heatwave which saw Britain record its first official temperature over the old century (37.8°C), at Gravesend just east of London. While most of the country had above-average temperatures for a fortnight or so, the south-east was the hottest region. Bookmakers lost heavily to those who bet that Britain would reach its first official temperature of 100°F. This has been compared to the very dry

summer of 1976, although that followed a dry year whereas this comes after a very wet autumn in 2002 so that reservoirs and groundwater levels were high. Despite uncomfortable humidity there has been little rain, with the result that gardens, playing fields etc. suffered. Kew Green became Kew Brown with large bare patches (apart, of course, from the carefully maintained cricket pitches). In the Gardens, sprinklers and bright yellow hoses appeared as the staff attempted to keep everything looking reasonable. In Finland and Sweden we have also learnt that the summer generally has been warm and dry, though everything looks in better state than around London.

Roberta Cowan

Coming conferences

The Fourth Southern Connections conference in Cape Town 19-23 January 2004

Southern Connections is a large group of scientists from all continents who study aspects of biology and earth history of the Southern Continents.

The fourth Southern Connections Conference will take place in Cape Town from 19-23 January 2004 and will be hosted by the University of Cape Town and affiliated scientists and institutes. Previous meetings have taken place in Australia, New Zealand and Chile. This will be a chance for scientists to experience the other major Southern Connector, southern Africa, and to continue and build on their interactions, discussions and collaborations concerning this bit of Gondwana. This is the first time that the conference will be held in South Africa, and in the beautiful city of Cape Town.

The theme in 2004 will be *Towards a Southern Perspective*. The literature in most fields of biology is dominated by a northern perspective. One of the main aims of Southern Connections is to develop and emphasise differences between North and South Africa, for example, with its

long history of hominids and its relatively well preserved megafauna, is a stark contrast to most of the Northern Hemisphere. Besides this theme there will be several other more specific themes relating to, for example, ecology, biogeography, phylogeny, phylogeography, history and utilization.

The official language of the conference will be English. No translation services will be provided

If you have any queries, please do not hesitate to contact Mrs Elizabeth Danckwerts, your secretariat, for assistance via the email address sc2004@botzoo.uct.ac.za.

Committee:

Chairman: Jeremy Midgley,
Vice-chair: William Bond,

Secretary/treasurer: Elizabeth Danckwerts,
Additional members: Ingrid Nanni, Steve Chown,
Richard Knight, Arminen Seydack

<http://web.uct.ac.za/conferences/sc2004/>

First International Phylogenetic Nomenclature Meeting, Paris, July 6 to 9, 2004

The Organizing Committee announces that the *First International Phylogenetic Nomenclature Meeting* will be held in Paris, at the *Muséum National d'Histoire Naturelle* and at the *Collège de France*, from June 28 to July 1, 2004. This meeting should be of general interest for biologists because it will constitute an important

event in the development of new code of biological nomenclature.

Papers presented at the meeting will be assembled into a symposium volume whose publication will coincide with the implementation of the PhyloCode. This volume will represent the

official starting point of phylogenetic nomenclature as implemented in the PhyloCode, and the names defined within it will be the first ones established under the new code.

We hope that specialists on a wide range of organisms will participate in the meeting and contribute to the symposium volume. The process of submitting abstracts will be detailed in the second circular. We ask that systematists who work on the same group collaborate to produce a single set of phylogenetic definitions for clade names in that group.

Many systematists consider that the current rank-based codes of biological nomenclature, which have pre-Darwinian roots, are poorly suited to modern systematics, which is intrinsically evolutionary. As a result, an increasing number of systematists have sought an alternative to the rank-based codes, and these investigations have resulted in the development of principles of Phylogenetic Nomenclature, and later, to a draft PhyloCode (accessible on the internet at www.ohiou.edu/phylocode/).

The PhyloCode differs from the current codes in numerous ways. Most importantly, in the PhyloCode, the names of taxa are defined by the phylogenetic relationships of species (or specimens), and rules of synonymy, homonymy and priority apply to taxon names without regard to rank. By contrast, in the rank-based codes, priority applies within a rank (botanical code) or within sets of coordinate ranks (zoological code), with the result that the correct name of a clade depends on the rank to which it is assigned. Furthermore, the rules of priority do not apply above a certain level in the rank-based codes (e.g., above the supra-familial level in the zoological code).

It is not possible to explain in full the working of the PhyloCode in this circular, but a few basic principles can be summarized. Three main categories of definitions have been proposed (Fig. 1):

- **Node-based definitions.** A node-based definition may take the form "the clade stemming from the most recent common ancestor of A and B" (and C, D, etc., as needed) or "the least inclusive clade containing A and B" (and C, D, etc.), where A-D (and other letters used in the two other categories of definitions) are specifiers (specifiers are species, specimens, or apomorphies).
- **Stem-based definitions.** A stem-based definition may take the form "the clade consisting of A and all organisms or species that share a more recent common ancestor

with A than with Z" (and Y and X, etc., as needed) or "the most inclusive clade containing A but not Z" (and Y and X, etc.).

- **Apomorphy-based definitions.** An apomorphy-based definition may take the form "the clade stemming from the first organism or species to possess apomorphy M as inherited by A" or "the most inclusive clade marked by apomorphy M as manifested in A."

According to the PhyloCode, later homonyms and synonyms are not accepted unless conserved. Precedence is based on the date of establishment, with earlier established names having precedence over later ones, except that later-established names may be conserved over earlier ones under certain conditions specified by the PhyloCode.

To facilitate the work of systematists, a freely accessible on-line database will include the exhaustive list of taxon names and definitions that have been published under the PhyloCode.

The PhyloCode will greatly clarify the application of names because in traditional nomenclature, many names are applied to groups that vary greatly in their inclusiveness even when there is no disagreement about the phylogeny. For example, the name Mammalia has been applied to clades as large as Synapsida (the total group that has existed since the Upper Carboniferous) or as small as Theria (which arose in the Cretaceous).

The PhyloCode Advisory Committee last met at Yale (New Haven, USA) in July 2002 and decided that the International Society for Phylogenetic Nomenclature would be inaugurated at an international meeting. A council and officers of the ISPN will be elected and committees established. These committees will be responsible for amending the PhyloCode, managing the registration database, and considering applications for suppression or

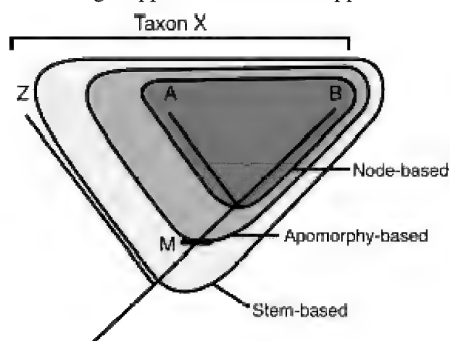


Fig. 1. Categories of phylogenetic definitions.

conservation of names, among other tasks.

We hope that this meeting and the publication of the symposium volume will be key events in the history of systematics. Indeed, they will mark the introduction of a new international code of biological nomenclature that incorporates the most fundamental changes in the way taxon names are defined since Linnaeus.

All interested systematists are cordially invited to participate in this historic meeting.

To receive the second circular (that includes registration information), please contact M.

Laurin by e-mail (laurin@ccr.jussieu.fr) and write in the "subject" field of the message "PhyloCode 2004 meeting".

The Organizing committee:

Michel Laurin, Chair, CNRS, Paris, France;
Fredrik Pleijel, MNHN, Paris;
Armand de Ricqlès, Collège de France, Paris, France
Jacques Gauthier, Yale, New Haven, USA
Kevin de Queiroz, Smithsonian Instn, Washington,
Jean-François Le Garrec, Treasurer, Paris, France
Tom Artois, Limburgs Univ., Diepenbeek, Belgium
Louise Zylberberg, CNRS, Paris, France
Jackie André, MNHN, Paris, France

XVII International Botanical Congress, Vienna 2005 18th – 23rd July (Nomenclature session 13th – 16th July)

See information on www.abc2005.ac.at for updates to the first circular reproduced in Newsletter 114.

Interesting websites

The Editors would welcome a short note on any sites readers feel would be useful to others.

Free-access web journal launched.

Want to know more about the free access biology journal just released on the web which aims to challenge *Science* and *Nature*. The Public Library of Science, publishers of PLoS Biology, can be found at www.publiclibraryofscience.org/ and yes, their first edition is now accessible for free.

Biodiversity hotspots

The 25 richest and most threatened reservoirs of plant and animal life on earth. Australia has only the south-west of Western Australia, along with New Zealand, Wallacea, New Caledonia and the Philippines for the general area. You can make comparisons with other hot-spot areas and there are lots of facts and figures for each area. For instance, the degree of endemism of plant species can be estimated for each region e.g. of the 12,000 plant species native to Madagascar, 9,700 are endemics.

www.biodiversityhotspots.org/xp/Hotspots

Plant Talk

Some of the stories from this global magazine are now on-line. Examples include:

- "The cost of invasive plants" as an editorial and "Combatting [sic] the spread of invasive species" by Maj de Poorter, Mick Clout & Mike Maunder
- Implementing the Global Strategy for Plant Conservation, by David Bramwell, Peter Raven and Hugh Synge
- How many plant species are there?, by David Bramwell
- Paradise Lost? The Magical Marquesas, by David Lorence
- Crete: Antique land of plant diversity, by John Akeroyd

www.plant-talk.org/Pages/stories.html

Paleobiology database

If you are into fossils this might be an extremely useful site. Its goal is to provide "global, collection-based occurrence and taxonomic data for marine and terrestrial animals and plants of any geological age".

<http://flatpebble.nceas.ucsb.edu/public/>

Genetic modification of crops

Some of the more recent articles available in journals on the web concerning genetic modification of crops have been brought together by *Nature* – many are freely accessible through this page.

www.nature.com/nature/focus/GM/

For those concerned about the gene flow from crops to wild relatives, they may not be any happier after they have read the abstract of the article by Haygood, Ives and Andow at:

www.pubs.royalsoc.ac.uk/proc_bio/proc_bio.html
... or the mixing of genes between wild plants and cultivated rapeseed at:

www.nature.com/nsu/031006/031006-13.html

World Atlas of Seagrasses

Want to know more about seagrasses. There's a book just been launched, but also at this site is an interactive map service where you can find out much more about individual species.

www.unep-wcmc.org/marine/seagrassatlas/

Grants and other funding sources

Two Post-doctoral Fellowships at Victoria University of Wellington, New Zealand.

Victoria University is a leading New Zealand University situated in Wellington, the capital city. We seek two excellent post-doctoral fellows to join our young and vigorous School of Biological Sciences (www.sbs.science.vuw.ac.nz/) in the fields of plant evolution and molecular ecology.

1. Plant Molecular Ecology. The research will involve application of molecular techniques to the study of rapid species radiations that have taken place in New Zealand from immigrant ancestors in the last few million years. The roles of immigrant selection, adaptive radiation, diploid hybrid speciation, allopatry, and diverse habitats will be examined using molecular phylogenetic techniques. The fellow will work with Professor Phil Garnock-Jones in collaboration with Associate Professor Peter Lockhart (Allan Wilson Centre for Research Excellence, Massey University, Palmerston North) and botanists at the Museum of New Zealand Te Papa Tongarewa. Applicants must have a PhD in systematic or evolutionary biology and should have a strong background in plant molecular systematics.

2. Evolution of separate and combined sexes in mosses. The fellow will work with Professor Phil Garnock-Jones and Dr Linley Jesson on a Marsden Funded project that will use mosses as a novel system to extend and test the generality of models that examine the evolution of separate and combined sexes. Applicants must have a PhD in plant ecology, systematics, or evolutionary biology and should have a strong background in one or more of molecular systematics, experimental and theoretical plant reproductive biology, evolutionary modelling, and bryophyte ecology and evolution.

For further information and to express interest, please contact

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Australian Biological Resources Study Call for Applications for 2004/2005

The ABRS Participatory Program supports the research and documentation of Australia's Biological diversity.

Research Project Grants and Biodiversity Information Product Grants

Applications are invited for research grants that support Australian Government National Research Priorities as detailed in the grant application guidelines.

Applications close on 10 November 2003

Postgraduate Scholarships

Applications are invited for Ph.D scholarships to support studies in systematics research of Australian flora and fauna.

Applications close on 3 November 2003

Further details

Further details about ABRS grants and scholarships can be obtained from our website:

www.deh.gov.au/biodiversity/abrs/admin/grants
or contact:

Business Manager, ABRS, GPO BOX 787,
Canberra ACT 2601
Phone (02) 6250 9554, fax (02) 6250 9555,
Email: abrs@deh.gov.au

ASBS Publications

History of Systematic Botany in Australia

Edited by P.S. Short. A4, case bound, 326pp. ASBS, 1990. \$10; plus \$10 p. & p.

For all those people interested in the 1988 ASBS symposium in Melbourne, here are the proceedings. It is a very nicely presented volume, containing 36 papers on: the botanical exploration of our region; the role of horticulturists, collectors and artists in the early documentation of the flora; the renowned (Mueller, Cunningham), and those whose contribution is sometimes overlooked (Buchanan, Wilhelm).

Systematic Status of Large Flowering Plant Genera

ASBS Newsletter Number 53, edited by Helen Hewson. 1987. \$5 + \$1.10 postage.

This Newsletter issue includes the reports from the February 1986 Boden Conference on the "Systematic Status of Large Flowering Plant Genera". The reports cover: the genus concept; the role of cladistics in generic delimitation; geographic range and the genus concepts; the value of chemical characters, pollination syndromes, and breeding systems as generic determinants; and generic concepts in the Asteraceae, Chenopodiaceae, Epacridaceae, *Cassia*, *Acacia*, and *Eucalyptus*.

Ecology of the Southern Conifers

Edited by Neal Enright and Robert Hill.

ASBS members: \$60 plus \$12 p&p non-members \$79.95.

Proceedings of a symposium at the ASBS conference in Hobart in 1993. Twenty-eight scholars from across the hemisphere examine the history and ecology of the southern conifers, and emphasise their importance in understanding the evolution and ecological dynamics of southern vegetation.

Australian Systematic Botany Society Newsletter

Back issues of the Newsletter are available from from *Number 27* (May 1981) onwards, excluding *Numbers 29, 31, 60-62, 66, 84, 89, 90, 99, 100 and 103*. Here is the chance to complete your set. Cover prices are \$3.50 (*Numbers 27-59*, excluding *Number 53*) and \$5.00 (*Number 53*, and *60* onwards). Postage \$1.10 per issue.

Send orders and remittances (payable to "ASBS Inc.") to:

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Evolution of the Flora and Fauna of Arid Australia

Edited by W.R. Barker & P.J.M. Greenslade. ASBS & A.N.Z.A.A.S., 1982. \$20 + \$5 postage.

This collection of more than 40 papers will interest all people concerned with Australia's dry inland, or the evolutionary history of its flora and fauna. It is of value to those studying both arid lands and evolution in general. Six sections cover: ecological and historical background; ecological and reproductive adaptations in plants; vertebrate animals; invertebrate animals; individual plant groups; and concluding remarks.

Special arrangement. To obtain this discounted price, post a photocopy of this page with remittance to: Peacock Publications, 38 Sydenham Road, Norwood, SA 5069, Australia.

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These listings are published in each issue. Please inform the Editors of any changes

AUSTRALIAN SYSTEMATIC BOTANY SOCIETY INCORPORATED

The Society

The *Australian Systematic Botany Society* is an incorporated association of over 300 people with professional or amateur interest in botany. The aim of the Society is to promote the study of plant systematics.

Membership

Membership is open to all those interested in plant systematics. Membership entitles the member to attend general meetings and chapter meetings, and to receive the Newsletter. Any person may apply for membership by filling in a "Membership Application" form and forwarding it, with the appropriate subscription, to the Treasurer. Subscriptions become due on January 1 each year.

The ASBS *annual membership subscription* is \$40(Aust.); full-time students \$20. Please make cheques out to *Australian Systematic Botany Society Inc.*, and remit to the Treasurer. All changes of address should be sent directly to the Treasurer as well.

The Newsletter

The Newsletter appears quarterly, keeps members informed of Society events and news, and provides a vehicle for debate and discussion. In addition, original articles, notes and letters (not exceeding ten published pages in length) will be considered.

Contributions should be sent to the Editors at the address given below. They should *preferably* be submitted as: (1) an MS-DOS file in the form of a text file (*.txt* extension), (2) an MS-Word 97 or earlier version *doc* file, (3) a Rich-text-format or *rtf* file. Send on an MS-DOS disk or as an email message or attachment. *Non-preferred* media such as handwritten or typescripts by letter or fax are acceptable, but may cause delay in publication in view of the extra work-load involved. Contact the Editors on *images*; their inclusion may depend on space being available.

The *deadline* for contributions is the last day of February, May, August and November. All items incorporated in the Newsletter will be duly acknowledged. Any unsigned articles are attributable to the Editors.

Authors alone are responsible for the views expressed, and statements made by the authors do not necessarily represent the views of the *Australian Systematic Botany Society Inc.* Newsletter items should not be reproduced without the permission of the author of the material.

Advertising

Advertising space is available for products or services of interest to ASBS members. The current fee is \$100 per full page, \$50 per half-page or less.

Fliers may be approved for inclusion in the envelope for products or services of interest to ASBS members. The current fee is \$100 per flyer, plus the cost of inserting them (usually roughly \$25-30). Fliers are not part of the Newsletter and do not appear with the Newsletter on the ASBS Web site.

A 20% discount applies for second and subsequent entries of the same advertisement. Advertisements from ASBS members are usually exempt from fees but not the insertion costs in the case of a flier. Contact the Newsletter Editors for further information.

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